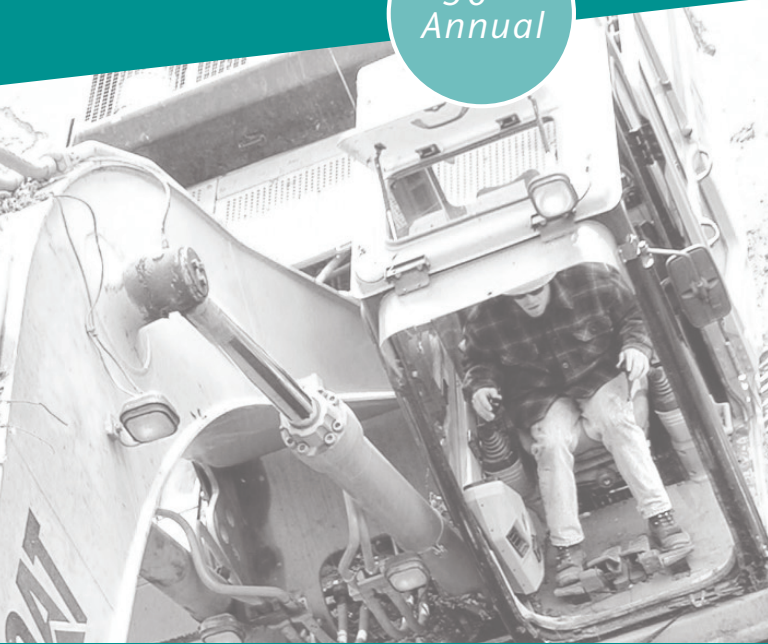


ROAD BUILDERS' CLINIC

56TH
Annual



MARCH 1–3, 2005

COEUR D'ALENE RESORT
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 UNIVERSITY



University of Idaho

Contributors

The Road Builders' Clinic gratefully appreciates support from the following contributors:

CRIMSON LEVEL

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Washington Group International

GRAY LEVEL

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WHITE LEVEL

Coral Sales Company
County Road Administration Board
Transportation Improvement Board
Idaho Transportation Department

Call for Papers 2006

Conference Chair: Rafik Itani, Washington State University

We are seeking qualified speakers for the 57th Road Builders' Clinic in 2006. Please send us a one- or two-page abstract by May 1, 2005. The committee will review all abstracts received for possible presentation at the 2006 Clinic. For producers or product representatives, all presentations will need to be technically-based without unnecessary product/company promotion. Final papers will be prepared for the conference proceedings. Paper selections will be finalized by June 1, 2005.

E-mail your paper to Joy Thompson (joyt@wsu.edu) by May 1, 2005.

Washington State University and the University of Idaho are equal opportunity/affirmative action institutions.

WSU does not endorse any commercial vendor or product listed in this brochure. Such names are included for information only.

56TH Annual **Road Builders' Clinic**

March 1–3, 2005

The Road Builders' Clinic is a two-and-a-half-day continuing education program of technical and managerial topics for engineers and road superintendents who are responsible for design, construction, operation, and maintenance of roads, and for acquisition and operation of equipment necessary to perform the above.

Sessions include formal presentations, audience discussion, and interaction. Learn from qualified experts innovative solutions for:

- Public Involvement
- Bridges
- Environmental Issues
- New Technology
- Operations

A variety of commercial displays of related equipment and materials is available to participants.

Continuing Education Units

The Road Builders' Clinic meets the criteria for 1.2 Continuing Education Units (CEUs). CEUs are nationally recognized, uniform units of measurement that become a permanent record of your attendance at this program. The \$5.00 processing fee may be included with payment for registration and is not refundable. The units are recorded on a permanent CEU transcript at Washington State University. An official copy of the cumulative record may be obtained with a written request and payment of the \$4.46 transcript fee to WSU. CEUs must be purchased prior to the first session.



Registration and Refunds

The early registration fee is \$249 by February 1 and includes coffee breaks, the reception, two lunches, the banquet, entrance to drawings, and proceedings. To register, complete the registration form on the last page and mail or fax your information to Conferences and Professional Programs (address is on the form). You can also register online at capps.wsu.edu/rbc

*Cancellations must be received **in writing** by February 14th or a \$75 processing fee will be assessed. Registrants who do not attend and have not cancelled by the first day of the conference are responsible for the full fee. Substitutions are welcome at any time.*

Accommodations for individuals who qualify under the **Americans with Disabilities Act** are available upon request. Call two weeks in advance (800-942-4978 or 509-335-3530).

Exhibitor Registration

Please mail your registration form early if you want to reserve display space. Displays can be set up from 7:30AM to 10:00AM on Tuesday, March 1. Displayers who register by February 1 pay a \$379 fee that includes one registration, one draped 6 x 2½-foot display table and chair, a piped and draped back display, breaks, two lunches, the banquet, the book of clinic proceedings, an address list of conference participants, and sponsorship of the opening night reception.

The Road Builders' Clinic annually attracts at least 250 road engineers and is a good opportunity for suppliers to display their products. An Exhibitors' Social is scheduled directly following Session I from 5:00PM to 6:30PM on the first day of the Road Builders' Clinic (Tuesday). The event will be held in the exhibit ballroom and will feature light hors d'oeuvres and a no-host beverage bar.

All exhibitor space will be assigned and all exhibitors will be in one room of the Resort. After registering, you will be sent a diagram of display space from which to choose. Additional personnel from your company are welcome to attend your display at no charge, but fees are required if they want to attend any sessions or need a name tag or meals. Partial fees and meal tickets can be purchased separately.

Accommodations

The Coeur d'Alene Resort

115 S. 2nd Ave.

Coeur d'Alene, Idaho 83814-1941 USA

Reservations: 800-688-5253

Fax: 208-664-7276

Directions from Spokane: Take the first City Center exit, turn right.

Directions from Highway 95: City Center exit, turn right.

Reservation Deadline: A block of rooms has been reserved for this conference. The resort will release unreserved rooms on February 7.

Room Rates: Mention the **Road Builders' Clinic** to receive the conference rates. The resort has agreed to offer these rates for the Saturday and Sunday preceding and following the conference for those who would like to stay longer.

Government Rate..... \$86

(or prevailing rate)

Economy/Park Wing...\$86

Tower..... \$135

Spokane Airport Transportation: Round-trip Limovan transportation is available from the Spokane International Airport for \$49. Advanced reservations are required; call 800-688-5253.

Conference Management & Arrangements

Conferences and Professional Programs

Washington State University

PO Box 645222

Pullman, Washington 99164-5222 USA

Phone: 800-942-4978 or 509-335-3530

Fax: 509-335-0945

E-mail: wsuconf@wsu.edu

Web: capps.wsu.edu



Road Builders' Clinic Committee

CHAIR: Dr. Edwin Schmeckpeper, University of Idaho

CO-CHAIR: Dr. Rafik Itani, Washington State University

Doug Argo	GeoEngineers
Tom Ballard	Pierce County Public Works
Phil Barto	Fleet Engineering Services
Harry Bennetts	Federal Highway Administration
Teri Lynn Cavallo	W&H Pacific
John Collins	ITD
Kevin Cooley	CH2M Hill
Jeff Dobson	Roadwise Inc
Bruce Drewes	Idaho T ² Center
John Duval	Asphalt Institute
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Brian Walsh	WST ² Center
Scott Ward	Strata
Jim Whitbread	Stevens County
Norm Wold	Lewis County
Joe Wuest	Lakes Highway District



56TH Annual
Road Builders' Clinic PRE-CONFERENCE
NW Concrete Pavement Seminar Agenda

MONDAY, FEBRUARY 28

- 1:00^{PM}** **Welcoming Remarks**
Jim Powell, PE, Executive Director Northwest Chapter, American Concrete Pavement Association
- 1:10** **What's All this Noise About Noise**
Jim Powell. Tire-pavement noise has become a significant issue in the United States. Jim will discuss factors affecting noise and summarize research efforts.
- 1:40** **Diamond Grinding for Smoothness, Friction, & Noise**
John Roberts PE, International Grooving & Grinding Association. Mr. Roberts will cover diamond grinding procedures, results, and recent research on optimizing diamond grinding to reduce tire-pavement noise.
- 2:40** **BREAK**
- 3:00** **WSDOT Experimental Concrete Pavement Features**
Jeff Uhlmeier PE, Washington State Department of Transportation. WSDOT has recently constructed projects to investigate alternative surface textures, thin whitetopping performance, and mitigation of studded tire wear.
- 3:45** **Streetpave Software for Concrete Pavement Design**
Steve Waalkes, American Concrete Pavement Association. An overview of pavement design software for use on streets and local roads developed by the ACPA. Attendees will be provided pre-release copies of the software.
- 4:30** **ADJOURN**

TUESDAY, MARCH 1

- 8:30^{AM}** **Mechanistic Considerations for Pavement Design**
FHWA CPTP Implementation Team. Brief introduction to mechanistic analysis of concrete pavements, curling/warping analysis and impact; requirements for the new mechanistic-empirical design procedures (200x guide) agency implementation requirements.
- 9:30** **MIT Scan Device & Dowel Bar Alignment Testing**
FHWA CPTP Implementation Team. The new MIT scan device is used to determine dowel bar location and alignment. Learn about the use of the device and recent efforts in determining dowel bar alignment impacts.
- 10:15** **BREAK**
- 10:30** **4x4 Concrete for Rapid Pavement Construction**
Tom Salata, Western States Chapter-ACPA & Jim Anderson, Master Builders. This presentation will cover the development and use of a concrete mixture recently used on a CalTrans project capable of achieving 400 psi flexural strength in four hours.
- 11:30** **Design & Construction of Pervious Concrete Pavements**
Speaker TBA. Pervious concrete pavements are rapidly gaining interest for storm water runoff mitigation and control. Proper design and construction practices are critical to ensure performance of these pavements.
- 12:00** **ADJOURN**

56TH Annual Road Builders' Clinic

March 1–3, 2005

TUESDAY, MARCH 1

9:00^{AM} **Registration Opens**

11:30^{AM} **Lunch Speaker: Tacoma Narrows Construction**

The Tacoma Narrows Bridge—The Constructors Perspective

The informative and insightful presentation will look at the project status, design-build perspectives and unusual issues surrounding the construction of the cutting-edge Tacoma Narrows Bridge. The team responsible for construction will share details from contracting for a project this size to how to compete in a world market.

SESSION 1—PUBLIC INVOLVEMENT

*Moderators—Bob Moorehead, Transportation Improvement Board
Randy Noble, Thomas Dean Hoskins*

1:30^{PM} **Community Leadership**

John Ostrowski PE, John Ostrowski Management Consultant

The importance of community leadership in a successful public involvement process will be examined.

2:00 **Customer Service**

Roger Flint, City of Spokane

Customer service is a portion of the public involvement process that begins with the government agency.

2:30 **BREAK**

3:00 **Context Sensitive Design**

Timothy Hedon PE, City of Des Moines

In designing a major arterial improvement project, how does public involvement contribute to “context sensitive design”?

3:30 **Community Impact**

Gary Allgood, City of Walla Walla Public Works Department

Not only does the outcome of a public works project have an impact on a community, the construction of a major project in the downtown district over a two-year period is in itself a major impact.

4:00 **How to Conduct a Public Meeting**

Michelle Hege, Desautel Hege Communications

Many projects require a public process, but it can be challenging to make it meaningful. This session will provide strategies and tips for planning effective and manageable public meetings.

4:30 **Case Study: Public Input for the Valley Corridor Project**

Neil Kersten, City of Spokane Valley & Ross Kelley PE, Spokane County Public Works

The Spokane County Public Works Department conducted a regional study of proposed urban connectors entitled Connecting our Community (1998). Ross Kelly will present the methodology utilized to secure public input and acceptance of the Spokane Valley Couplet. Neil Kersten will present Spokane Valley's plan to continue public support of this project.

5:00 **EXHIBITOR SPONSORED SOCIAL**

Sponsored by all Road Builders' Clinic Exhibitors.

SESSION II—ENVIRONMENTAL ISSUES

Moderators—*Doug Argo, GeoEngineers*
Scott Ward, Strata

8:00_{AM} Avoiding Common Pitfalls in Biological Assessment

Wayne Wright, GeoEngineers

Need a Biological Assessment or Biological Evaluation to meet the Endangered Species Act review? Learn some basic steps to follow in order to minimize risk of permit granting delays and maximize project performance. How and when to involve agencies and how to get the most out of your consultants.

8:30 Of Kelp Beds and Foundations: The Tacoma Narrows Bridge

Wayne Wright, GeoEngineers

How was the location of the new Tacoma Narrows bridge (relative to the old one) selected? One of the factors might surprise you.

9:00 Implementing Environmental Commitments During Construction

Ken Sorenson, Idaho Transportation Department District 1 and David Butzier, Washington Group International

Challenges of ensuring that environmental commitments made during the project development process of a highway project are implemented during construction. The project being highlighted is Copeland North in Northern Idaho.

9:30 BREAK**10:00 New Regulations for Stormwater Ditches—An Update on the Talent Decision**

Wayne Wright, GeoEngineers

The 9th District Court of Appeals findings have thrust stormwater ditches and associated facilities into a regulatory environment when they discharge to waters of the United States. Find out the current status of how this impacts your project with this informative talk.

10:30 Using Riparian Ecosystem Restoration for Flow Control instead of Stormwater Detention Ponds

Steven Thompson, WSDOT—Olympic Region

WSDOT is proposing to use riparian restoration as a means to protect three urban streams near Tacoma from impacts resulting from the added impervious surface of the freeway. The proposal would restore about 189 acres of habitat and almost four miles of degraded urban streams. Learn about the environmental, social, economic, and project delivery benefits of this unconventional approach.

11:30 LUNCHEON

WEDNESDAY, MARCH 2**SESSION III—BRIDGES**

Moderators – *Dr. Edwin Schmeckpeper, University of Idaho*
Jerome Nicholls, Nicholls Engineering

- 8:00_{AM}** **WSDOT Bridge Replacement Program**
Grant Griffin, WSDOT
The Washington Bridges and the Bridge Replacement Program funds about \$35 million each year for the replacement of city and county bridges. Mr. Grant will explain his position and what services are available. He will also describe the procedure, requirements and criteria to replace bridges.
- 8:30** **The New North Spokane Freeway “Tub” Girders**
Chuck Prussack PE, Central Premix-Prestress
The design and construction of the North Spokane Freeway using an innovative precast concrete bridge girder section.
- 9:00** **NE 8th St. Bridge**
Larry Kyle PE, HDR
The NE 8th St. bridge in Bellevue was erected in one location, then rolled into place for the final closure pour.
- 9:30** **BREAK**
- 10:00** **Rehabilitation of Existing Bridges—Case Study of Two Northern Idaho Forest Bridges**
Jerry Nicholls, Nicholls Engineering
Two case studies involving the rehabilitation of bridges owned by the Potlatch Corporation. Nicholls will be discussing the reconstruction of the approach fills while maintaining the structural integrity of one bridge, and rehabilitating the substructure along with increasing the load capacity of the second bridge.
- 10:30** **Design of Large Radius Curved Bridges**
Lisa Vernon PE, CH2M Hill
Lisa will cover questions raised during the design of a curved bridge for US 95 and the ramifications involved with the design of large radius curved bridges using the LRFD Bridge Design Specifications.
- 11:00** **High Performance Concrete in Bridge Decks**
Edwin Schmeckpeper PE, University of Idaho
High performance concrete was specified for use in the deck for the US 95 bridge crossing the South Fork of the Palouse River. This is one of the first bridges in Idaho where HPC was used.
- 11:30** **LUNCHEON**



WEDNESDAY, MARCH 2**SESSION IV—ENVIRONMENTAL ISSUES**

Moderators—*Doug Argo, GeoEngineers*
Scott Ward, Strata

**12:30^{PM} Wetland Mitigation in an Urban Environment:
170th Ave. & Oak St. Portland, Oregon**

Jerry Parmenter, W&H Pacific, Inc.

Wetlands were present along the project, and the improvements would adversely impact them. We created useful wetlands in an urban environment during the course of our mitigation.

**1:00 Moving Historical Structures & Removing 24
Homes: 170th Ave. & Oak St. Portland, Oregon**

Jerry Parmenter, W&H Pacific, Inc.

Planned widening of 170th Ave. would adversely impact historic houses and an additional 24 homes. The historic homes were successfully relocated, and other homes were successfully removed and the owners relocated.

**1:30 Minimizing Contaminant Transport, Shoshone
County Airport**

Ken Nichols, Toothman-Orton Engineering

A common sense approach to managing hazardous materials during construction of runway repairs at Shoshone County Airport—practical applications for your construction project.

2:00 BREAK

**2:30 Meth Labs & Right of Way Acquisition: How to
Spot Trouble**

*Michael LaScuola, Spokane Regional Health District & Paul
Savage, Spokane Regional Health District*

Meth labs pose a serious health threat to personnel, and more and more labs are showing up during right-of-way acquisition. Learn some of the telltale signs of trouble that indicate that a meth lab might be present on site.

3:00 Proper Installation of Erosion Control Measures

Carl Menconi, Environmental Project Consulting LLC

Successful erosion control requires familiarity with BMP capabilities, combined with a keen awareness of site conditions. Sometimes project plans are not as helpful as they should be. How do you make erosion control work in the real world?

**3:30 Erosion Control in a Sensitive Environment,
Electrical Substation to Smith Creek, Idaho**

Joe Schacher, Idaho Transportation Department District 2
Challenges of implementing effective erosion control measures on a highway construction project that is in an environmentally sensitive area.

6:00 SOCIAL

6:30 BANQUET DINNER & ENTERTAINMENT

WEDNESDAY, MARCH 2

SESSION V—OPERATIONS

Moderators—*Phil Barto, Fleet Engineering Services*
Greg Fredericksen, Idaho Transportation Department
Bruce Drewes, Idaho T² Center

12:30PM What Contractors Wished Agencies Knew About Writing Specifications

Lynn Manus, Contractors Northwest, Inc.

Many construction projects are burdened with delays and expensive claims, which is not good for the owner or the contractor. Learn some of the problems that contractors encounter and how it impacts them and you. Learn what contractors would like every owner to know.

1:00 Writing Specifications to Avoid Claims

Chad Coles, Spokane County Road Department

Urban construction work has the potential to generate many construction claims, because of congestion, traffic and underground utilities. Spokane County is working to reduce the number of claims on their projects.

1:30 Basics of Pavement Design

Chris Schnieder, Strata Engineers

This is a short review of flexible pavement design procedures, and the importance of evaluating subgrade soils in pavement designs.

2:00 BREAK**2:30 Coeur d'Alene Airport Expansion Coordinating a Project with Multiple Stakeholders & Multiple Funding Sources**

Ken Nichols, Toothman-Orton Engineering

Although the primary goal of the project was a large airport expansion, it also involved upgrading roads, sewer, and water systems. It was funded using four grant fund sources as well as local match money from five agencies.

3:00 Design & Construction of Bituminous Surface Treatments

Phil Barto, Fleet Engineering Services

Bituminous Surface Treatments are a cost effective approach to hard surfacing low volume local roads, if they are done well. This is a review of design procedures and the importance of good construction management for BST.

3:30 Training is Available Through LTAP & T² Centers

Brian Walsh, WST² Center

Most managers agree that good training improves organizational performance. Good training is available to local government through the Local Technical Assistance Program and the Technology Transfer Centers.

6:00 SOCIAL**6:30 BANQUET DINNER & ENTERTAINMENT**

THURSDAY, MARCH 3

SESSION VI—NEW TECHNOLOGY

*Moderators—Kathleen Johnson, TRANSPO Technologies
Brain Walsh, WST² Center
Dick Snyder, Washington State Association of
County Engineers*

8:00 Pavement Edge Drop-off Crash Dynamics & an Effective Countermeasure

Frank Jullian, Federal Highway Administration

The presentation will give a summary of the prior research conducted to quantify the contribution of pavement edge drop-offs to crashes. The dynamics involved in a pavement edge drop-off crash will be explained and why many times pavement edge drop-offs are not a contributing factor in the crash, even when present. Finally, we will discuss the low cost, pavement edge drop-off countermeasures (new technology) called the "Safety Edge" and the status of the deployment of this design by several states.

8:45 Intellizone, Highway Advisory Radio

Tony Coventry, Quixote Transportation Technologies, Inc.

Not every important message for motorists on the roadway fits on a three-line message board. Highway advisory radio allows fuller and more complete communication with the public. The presentation will provide creative solutions and implementation strategies that will be possible with this newer technology and its ability to communicate with the driver.

9:30 BREAK**10:00 Implementing Centerline Rumble Strips**

Matthew Enders PE, WSDOT

WSDOT has been experimenting with centerline rumble strips since the mid 1990s. These experiments and subsequent research will be highlighted in this presentation and what the future is for centerline rumble strips on Washington State Highways (including local roadways) and their proven effectiveness in reducing crossover crashes on rural two lane highways.

10:30 Roundabout Planning & Current Research

Brian Ray PE, Kittelson and Associates, Inc.

Roundabouts are rapidly becoming a common solution for at-grade intersections. The unique operations and safety benefits of an isolated roundabout are applicable when considering roundabouts with the context of a roadway system. Brian Ray will discuss the system implications and opportunities afforded by roundabouts including applications near signals, closely spaced roundabouts, multiple roundabouts in networks, and other issues related to adjacent access and circulation.

11:30 ADJOURN

56TH Annual Road Builders' Clinic

DISCOUNT!

Register early for the Road Builders' Clinic for only \$249 per person and save up to \$40!

FIVE EASY WAYS TO REGISTER:

MAIL the registration form, with payment (payable to Washington State University) to:

WSU Conferences and professional Programs
PO Box 645222
Pullman, WA 99164-5222

FAX your registration with payment information to 509-335-0945

PHONE 800-942-4978 or 509-335-3530

ON-LINE registration at capps.wsu.edu

CANCELLATIONS

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RBC & Concrete		<input type="radio"/> \$359	<input type="radio"/> \$359	<input type="radio"/> \$399
RBC only (#2145)		<input type="radio"/> \$249	<input type="radio"/> \$249	<input type="radio"/> \$289
Concrete only (#2025)		<input type="radio"/> \$159	<input type="radio"/> \$159	<input type="radio"/> \$199
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